

LIST OF U.S. CUSTOMS LABORATORY METHODS

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USCL METHOD 33-01

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USP 841 Specific Gravity

Chapter 33 of the Harmonized Tariff
Schedule of the United States
(HTSUS).

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

2

REFERENCE

USP 841
Specific Gravity

1 SCOPE AND FIELD OF APPLICATION

- 1.1 Unless otherwise stated in the individual monograph, the specific gravity determination is only applicable to liquids, and unless otherwise stated, is based on the ratio of the weight of a substance in air at 25 degrees to that of an equal volume of water at the same temperature.
- 1.1.1 Where a temperature is specified in the individual monograph, the specific gravity is the ratio of the weight of the substance in air at the specified temperature to that of an equal volume of water at the same temperature.
- 1.2 This method is used as a distinguishing factor between the commodities covered under

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AOAC 920.212 Specific Gravity (Apparent) of Oils Pycnometer Method

SAFETY PRECAUTIONS

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REFERENCE

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

AOAC 920.212

Specific Gravity (Apparent) of Oils
Pycnometer Method

1 SCOPE AND FIELD OF APPLICATION

- 1.1 This method employs the use of a pycnometer to measure the specific gravity (apparent) of oils at 25 degrees.
- 1.2 Specific gravity is used as a distinguishing factor between the essential oils covered under Subheading 3301 of the Harmonized Tariff Schedule of the United States (HTSUS).

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USP 781A Angular Rotation

SAFETY PRECAUTIONS

USP 781A

Angular Rotation

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

- 1.1 Optically active substances rotate an incident plane of polarized light so that the transmitted light emerges at a measurable angle to the plane of incident light. The measurement of optical rotation of a liquid or a solute in solution is a convenient tool for distinguishing optically active isomers from each other and thus is an important criterion of identity and purity.
- 1.2 This method is employed as a distinguishing factor between the commodities covered under Chapter 33 of the Harmonized Tariff Schedule of the United States (HTSUS).

2 REFERENCE

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USCL METHOD 33-04

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USP 831 Refractive Index

2 REFERENCE

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

USP 831
Refractive Index

1 SCOPE AND FIELD OF APPLICATION

- 1.1 This method employs the refractive index (n) of a substance which is the ratio of light in air to the velocity of light in the substance.
 - 1.1.1 Although the standard temperature for some measurements is 25 degrees, many of the reflective index specifications in the individual monographs call for determining the value at 20 degrees. The temperature should be carefully adjusted and maintained, since the reflective index varies significantly with temperature.
- 1.2 This method is employed as a distinguishing factor between the commodities covered under Chapter 33 of the Harmonized Tariff Schedule of the United States (HTSUS).

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AOAC 921.08 Index of Refraction of Oils and Fats

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

- 1.1 This method employs a refractometer to measure the refractive index of oils at 20 or 25 degrees and fats at 40 degrees.
- 1.2 Refractive index is used as a distinguishing factor between the commodities of Chapter 33 of the Harmonized Tariff Schedule of the United States (HTSUS).

2 REFERENCE

AOAC 921.08
Index of Refraction of Oils and Fats

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USP 761

Nuclear Magnetic Resonance

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

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REFERENCE

USP 761

Nuclear Magnetic Resonance

1 SCOPE AND FIELD OF APPLICATION

1.1 Nuclear Magnetic Resonance (NMR) spectroscopy is an analytical procedure based on magnetic properties of certain nuclei. It is similar to other types of spectroscopy in that absorption or emission of electromagnetic energy at characteristic frequencies provide vital structural information.

1.2 This analytical method is extensively employed in the laboratories where organic compounds are analyzed for identification and classification purposes under the Harmonized Tariff Schedule of the United States (HTSUS).

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ASTM E 386

Practice for Data Presentation Relating to High Resolution Nuclear Magnetic Resonance (NMR) Spectroscopy

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

2

REFERENCE

ASTM E 386

Practice for Data Presentation Relating to High Resolution Nuclear Magnetic Resonance (NMR) Spectroscopy

1 SCOPE AND FIELD OF APPLICATION

- 1.1 This standard contains definitions of basic terms, conversions, and recommended practices for data presentation in the area of high-resolution NMR spectroscopy. Some of the basic definitions apply to wide-line NMR or to NMR of metals, but in general it is not intended to cover these latter areas of NMR in this standard. This version does not include definitions pertaining to double resonance nor to rotating frame experiments.

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USP 621 Chromatography

USP 621
Chromatography

SAFETY PRECAUTIONS

This method does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user of this method to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to its use.

1 SCOPE AND FIELD OF APPLICATION

- 1.1 This method defines the terms and procedures used in chromatography and provides general information. The areas of column, gas, paper, thin-layer and high-performance liquid chromatography are to be referred for specific requirements of chromatographic tests and assays of the chemicals.
- 1.2 These methods are extensively employed in the analytical laboratories where the chemicals are analyzed for identification and classification purposes under the Harmonized Tariff Schedule of the United States (HTSUS).

2 REFERENCE